Institut für
Angewandte Mathematik

Leibniz
Universität
Hannover

Institut für Angewandte Mathematik
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Oberseminar
Analysis und Theoretische Physik

Prof. Jens Rademacher
(Universität Bremen)

Nonlinear waves in idealized spintronic device models with aligned fields

Abstract:

The self-organized emergence of spatio-temporal patterns and nonlinear waves is a ubiquitous phenomenon in nonlinear processes on large homogeneous domains. In this talk, a class of Landau-Lifshitz-equations with Gilbert damping and Slonczewski spin transfer term is studied from this viewpoint, highlighting various aspects of the theory. The model describes damped-driven magnetization dynamics in the presence of dissipation and applied magnetic field as well as spin polarized current. In this mathematical analysis we consider the case of axial symmetry and focus on coherent structure solutions that are closely related to the symmetry in one space dimension.
This is joint work with Christof Melcher (RWTH Aachen)

Dienstag, 28. April, 16:00 Uhr, Raum g005
Hauptgebäude der Universität

Über Ihren Besuch würden sich freuen:

Prof. Dr. Wolfram Bauer
Prof. Dr. Joachim Escher
Prof. Dr. Olaf Lechtenfeld
Prof. Dr. Elmar Schrohe
Prof. Dr. Christoph Walker